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EXAMINER	
BUTLER, PATRICK NEAL	

ART UNIT	PAPER NUMBER
1791	

NOTIFICATION DATE	DELIVERY MODE
10/06/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/540,235	NORGAARD, MORTEN	
	Examiner	Art Unit	
	Patrick Butler	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-20 and 25-30* is/are pending in the application.

4a) Of the above claim(s) *9-15,19 and 20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *25-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 27-29 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 25, 26, and 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to Claim 25, the limitations of "an applicator for delivering concrete" in line 6 and "feeding concrete to the applicator as the applicator… move[s] upwardly" in lines 9 and 10 are not disclosed the Specification as originally filed. Although a feed system 8 for concrete is disclosed and an applicator for applying the further material is disclosed (see Applicant's PCT Specification [0017]-[0019] and [0039]), the moving applicator is not disclosed. Claims 26 and 30 are rejected via their dependency.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 25, 26, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kern (US Patent No. 5,051,223) and in view of in view of Steiro (US Patent No. 4,039,642) solely, or further in view of Ross (US Patent No. 1,694,563).

With respect to Claim 16, Kern teaches a concrete pipe with an impregnated inner wall (a method for manufacturing a lined concrete pipe comprised of an outer concrete layer and an inner layer composed of a further material which forms a greater density inner surface liner) (see abstract and col. 1, lines 30-58). The pipe is formed between vertical pipe form 1 and roll head of the pipe press (providing an outer mould part and a core, a space formed between the outer mould part and the core having a shape of the lined concrete pipe) (see fig. and col. 1, lines 62-68). Concrete is introduced into the pipe form to produce a cylindrical mass (providing an applicator for delivering concrete for forming the lined concrete pipe; feeding concrete to the applicator) (see col. 1, lines 30-43). Prestressing nozzles 13 of smoothing cylinder 5 supply a liquid impregnation material on the inner wall of the cylindrical mass (providing the applicator with one or more supply openings positioned for delivering the further material below the concrete supplied by the applicator to the space) (see col. 1, lines 62 through col. 2, line 34 and figure). Pressing rolls 6 would provide periodic compression

of the cylindrical concrete mass while the prestressing nozzles 13 of smoothing cylinder 5 supply a liquid impregnation material to the damp concrete (vibrating the concrete filling the space between the outer mould part and the core for maintaining the concrete in a fluid phase as the concrete is filling the space while simultaneously supplying the further material through the supply openings of the applicator for merging the further material with the adjacent fluidized concrete) (see col. 1, lines 62 through col. 2, line 34) would necessarily constitute vibration (vibration of the concrete). Kern's rollerhead is rotated during introduction, compaction, and smoothing of the materials introduced into the mold, which causes the inner wall to include the impregnation material that the outer wall does not (at least partially rotating the inner mould part during delivery of the concrete and further material for merging the further material with the concrete adjacent the applicator) (see col. 1, lines 30-58 and col. 2, lines 17-67), which makes the surface more dense (to provide a mutually denser structural liner with a tight bond between the concrete and further material, thereby forming an integral liner with the concrete pipe, providing a greater density surface on at least a portion of an inner surface of the concrete pipe).

Applicant refers to density in terms of density of surface structure and as being a degree of being impervious to entry at its surface (see Applicant's PCT Specification, page 4, lines 4-21). Thus, Kern meets the limitation of the "greater density" of the "further material" by being a protective layer material that is fine enough to permeate into the concrete (see col. 1, lines 14-16 and 30-43).

However, Kern does not appear to expressly teach that the supply opening extend in the longitudinal direction of the core.

Steiro teaches making concrete pipe by using an opening that is longitudinal (the supply openings essentially extending in the longitudinal direction of the core) (see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Steiro's longitudinal opening in Kern's core in order to facilitate expedited processing (see col. 1, lines 23-44) and because longitudinal openings fulfill the same purpose of providing molding material.

To the extent that the top of the pressure rollers 6, 6 smoothing cylinder 5 receives concrete (see Kern, col. 1, lines 62 through col. 2, line 34), Kerns teaches an applicator for the concrete (applicator and core being vertically movable upwardly within the outer mould part; feeding concrete to the applicator as the applicator and core move upwardly within the outer mould part for filling the space with concrete). Moreover, Kern's pipe press contacts and compacts the concrete with pressing rollers 6 then smoothes the concrete with cylinder 5 while intruding the impregnation material (move upwardly within the outer mould part for filling the space with concrete) (see col. 1, lines 30-43 and col. 2, lines 16-67). Thus, the rollerhead and pipe are necessarily moved longitudinally with respect to each other to allow the sequence.

However, if Kerns is held to not teach an applicator that moves vertically while dispensing concrete, Ross teaches applying a hydraulic inorganic settable material from

a low point and raising the dispenser during molding (see Ross, page 2 of text, lines 61-105).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Ross's raising applicator in the process of Kerns in order minimize air entrapment (see Ross, page 2 of text, lines 61-105).

With respect to Claim 26, Kern teaches smoothing cylinder 5 contains prestressing nozzles 13 (the applicator unit is integrally formed with the core or by an applicator unit in direct connection with the core) (see col. 1, lines 62 through col. 2, line 34 and figure).

With respect to Claim 30, the impregnating resin is in the form of a liquid (see col. 2, line 57).

Claims 25, 26, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kern (US Patent No. 5,051,223) and in view of in view of Steiro (US Patent No. 4,039,642) and Hutchinson (US Patent No. 2,356,852) solely, or further in view of Ross (US Patent No. 1,694,563).

With respect to Claims 25, 26, and 30, Kern teaches making a concrete pipe as described above.

However, if Kern's periodic compression by pressing rolls 6 before interaction with prestressing nozzles 13 of smoothing cylinder 5 (see col. 1, lines 62 through col. 2, line 34) is held to not necessarily constitute vibration, Hutchinson teaches vibration of the core in producing concrete pipe (see page 2 of text, lines 3-22).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Hutchinson's use of vibrations in Kern's core in order to make a pipe with better wear resistance (see Hutchinson, page 2 of text, right column, lines 36-39).

Response to Arguments

Applicant's arguments filed 16 July 2010 have been fully considered, but they are not persuasive.

Applicant argues with respect to the Information Disclosure Statement. Applicant's arguments appear to be on the grounds that:

1) The Danish Search Report was not a reference.

Applicant argues with respect to the 35 U.S.C. § 103(a) rejections. Applicant's arguments appear to be on the grounds that:

2) Kern does not provide an inner layer having a greater density structural surface since it diffuses by pressure into the concrete.

3) Steiro is cited for teaching using a longitudinal opening. However, the opening is not on a mold core.

4) Hutchinson's use of vibration is not associated with promoting an inner layer having a greater density structural surface.

The Applicant's arguments are addressed as follows:

1) The Information Disclosure Statement section of the Office Action mailed 08 March 2010 with respect to the Information Disclosure Statement filed 07 October 2009 was due to the Danish Search Report being cited as a reference for consideration.

Thus, as recited in the Information Disclosure Statement section of the Office Action mailed 08 March 2010:

> The information disclosure statement filed 07 October 2009 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the following references fail to provide required identification including a date of publication: Danish Search Report. As required by MPEP § 609.04(a), "Each publication must be identified by publisher, author (if any), title, relevant pages of the publication, and date and place of publication. The date of publication supplied must include at least the month and year of publication, except that the year of publication (without the month) will be accepted if the applicant points out in the information disclosure statement that the year of publication is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the particular month of publication is not in issue. The place of publication refers to the name of the journal, magazine, or other publication in which the information being submitted was published." It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining

compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

2) Kern's prestressing nozzles 13 of smoothing cylinder 5 supply a liquid impregnation material on the inner wall of the cylindrical mass (see col. 1, line 62 through col. 2, line 34 and figure). The impregnation material meets the claimed limitation of supplying a further material for greater density as recited above:

Applicant refers to density in terms of density of surface structure and as being a degree of being impervious to entry at its surface (see Applicant's PCT Specification, page 4, lines 4-21). Thus, Kern meets the limitation of the "greater density" of the "further material" by being a protective layer material that is fine enough to permeate into the concrete (see col. 1, lines 14-16 and 30-43).

2) Moreover, Applicant's argument describing Kern's material diffusing by pressure into the concrete indicates how Kern meets Claim 25's requirement of "merging the further material with the concrete for forming the inner layer." Thus, Kern's liquid impregnation material is not contrary to the claim's requirement.

3 and 4) In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

3) In response to applicant's argument that Steiro's opening is not in a mold core, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

3) Steiro is not relied upon for teaching an opening in a mold core; Steiro is relied upon to teach making concrete pipe by using an opening that is longitudinal (see abstract). Kern is relied upon to teach an opening in a mold core by teaching that prestressing nozzles 13 of smoothing cylinder 5 supply a liquid impregnation material on the inner wall of the cylindrical mass (see col. 1, line 62 through col. 2, line 34 and figure).

4) Hutchinson is not expressly relied upon promoting an inner layer having a greater density structural surface; Hutchinson is relied on for teaching vibration of the core in producing concrete pipe (see page 2 of text, lines 3-22), and Kern is relied upon for teaching that the rollerhead is rotated during introduction, compaction, and smoothing of the materials introduced into the mold, which causes the inner wall to include the impregnation material that the outer wall does not (see col. 1, lines 30-58 and col. 2, lines 17-67), which makes the surface more dense (inner layer of greater density in surface structure).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Butler whose telephone number is (571) 272-8517. The examiner can normally be reached on Mon.-Thu. 7:30 a.m.-5 p.m. and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. B./
Examiner, Art Unit 1791

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791